GeoVision
The Vision of Security

Quick Start Guide

GV-IP Camera H.264

alarm shop

Before attempting to connect or operate this product,
please read these instructions carefully and save this manual for future use.

© 2011 GeoVision, Inc. All rights reserved.
Under the copyright laws, this manual may not be copied, in whole or in part, without the written consent of GeoVision.

Every effort has been made to ensure that the information in this manual is accurate. GeoVision, Inc. makes no expressed or implied warranty of any kind and assumes no responsibility for errors or omissions. No liability is assumed for incidental or consequential damages arising from the use of the information or products contained herein. Features and specifications are subject to change without notice.

GeoVision, Inc.
9F, No. 246, Sec. 1, Neihu Rd.,
Neihu District, Taipei, Taiwan
Tel: +886-2-8797-8377
Fax: +886-2-8797-8335
http://www.geovision.com.tw

Trademarks used in this manual: *GeoVision*, the *GeoVision* logo and GV series products are trademarks of GeoVision, Inc. *Windows* and *Windows XP* are registered trademarks of Microsoft Corporation.

January 2011

Contents

Introduction iii

Options vi

Note for Connecting to GV-System vii

Note for Adjusting Focus and Zoom viii

1. Box Camera 1

1.1 Packing List 1
1.2 Overview 2
1.3 Accessory Installation 5
1.3.1 C-Mount Lenses 5
1.3.2 Infrared Illuminators 7
1.4 Connecting the Camera 9

2. Mini Fixed Dome 13

2.1 Packing List 13
2.2 Overview 14
2.3 Installation 15
2.4 Adjusting the Focus 16

3. Bullet Camera 17

3.1 Packing List 17
3.2 Overview 18
3.3 Installation 19
3.3.1 Adjusting the Angles 20
3.3.2 Adjusting Lens and Inserting a Memory Card 23
3.3.3 Inserting the Sun-Shield Cover 25
3.4 Connecting the Camera 26
3.4.1 Wire Definition 26
3.4.2 Connecting the Power Cable 27
3.4.3 Applying Waterproof Treatment 27

alarm shop

4. Vandal Proof IP Dome 29
4.1 Packing List 29
4.2 Overview 31
4.3 Installation 32
4.3.1 Hard-Ceiling Mount 32
4.3.2 In-Ceiling Mount 37
4.3.3 Wall-Pendent Mount 40
4.4 Connecting the Camera 43
4.4.1 Wire Definition 43
4.4.2 Connecting the Power Cable 44
5. Fixed IP Dome 45
5.1 Packing List 45
5.2 Overview 46
5.3 Installation 48
5.3.1 Hard-Ceiling Mount 48
5.3.2 Wall-Surface Mount 52
5.3.3 Wall-Pendent Mount 53
5.4 Connecting the Camera 55
6. Cube Camera 57
6.1 Packing List 57
6.2 Overview 58
6.3 Installation 59
6.4 Connecting the Camera 60
7. Accessing the Camera 61
7.1 System Requirement 61
7.2 Assigning an IP Address 62
8. The Web Interface 65
9. Upgrading System Firmware 67
10 Restoring to Default Settings 69
10.1 Using the Web Interface 69
10.2 Directly on the Camera 70

alarm shop

Introduction

Welcome to the *GV-IPCam H.264 Quick Start Guide*. In this quick guide, you will find information on the installation and basic configurations of the **Box Camera**, **Mini Fixed Dome**, **Bullet Camera**, **Vandal Proof IP Dome**, **Fixed IP Dome** and **Cube Camera**.

Model	Model No.		Description
Box Camera	GV-BX110D	Fixed Lens	1.3 M H.264 D/N Box IP Cam
		Varifocal Lens	
	GV-BX120D	Varifocal Lens	1.3 M H.264 Low Lux D/N Box IP Cam
	GV-BX220D-0	Varifocal Lens	2 M H.264 D/N Box IP Cam, Auto Iris IR, f: 2.8 ~ 8.5 mm, F/1.4, 1/3" CS Lens
	GV-BX220D-1		2 M H.264 D/N Box IP Cam, Auto Iris IR, f: 3.1 ~ 8 mm, F/1.2, 1/3" CS Lens
	GV-BX220D-2		2 M H.264 D/N Box IP Cam, Auto Iris IR, f: 2.8 ~ 6 mm, F/1.3, 1/3" CS Lens
	GV-BX220D-3		2 M H.264 D/N Box IP Cam, Auto Iris IR, f: 2.8 ~ 12 mm, F/1.4, 1/3" CS Lens

alarm shop

	GV-BX320D-0	Varifocal Lens	3 M H.264 D/N Box IP Cam f: 3.1 ~ 8 mm, F/1.2, 1/3'' CS Lens
	GV-BX320D-1		3 M H.264 D/N Box IP Cam f: 2.8 ~ 6 mm, F/1.3, 1/3'' CS Lens
Mini Fixed Dome	GV-MFD110	Fixed Lens	1.3 M H.264 Color Mini Fixed Dome
Bullet Camera	GV-BL110D	Varifocal Lens	1.3 M H.264 IR Bullet IP Cam
	GV-BL120D		1.3 M H.264 Low Lux IR Bullet IP Cam
	GV-BL220D		2 M H.264 IR Bullet IP Cam
	GV-BL320D		3 M H.264 IR Bullet IP Cam
Vandal Proof IP Dome	GV-VD120D (IK10+, Transparent Cover) GV-VD121D (IK10+, Smoked Cover) GV-VD122D (Transparent Cover) GV-VD123D (Smoked Cover)	Varifocal Lens	1.3 M H.264 Low Lux IR Vandal Proof IP Dome

alarm shop

Vandal Proof IP Dome	GV-VD220D (IK10+, Transparent Cover) GV-VD221D (IK10+, Smoked Cover) GV-VD222D (Transparent Cover) GV-VD223D (Smoked Cover)	Varifocal Lens	2 M H.264 IR Vandal Proof IP Dome
	GV-VD320D (IK10+, Transparent Cover) GV-VD321D (IK10+, Smoked Cover) GV-VD322D (Transparent Cover) GV-VD323D (Smoked Cover)		3 M H.264 IR Vandal Proof IP Dome
Fixed IP Dome	GV-FD120D	Varifocal Lens	1.3 M H.264 Low Lux IR Fixed IP Dome
	GV-FD220D		2 M H.264 IR Fixed IP Dome
	GV-FD320D		3 M H.264 IR Fixed IP Dome
Cube Camera	GV-CB120	Fixed Lens	1.3 M H.264 Cube Camera
	GV-CB220		2 M H.264 Cube Camera

alarm shop

For a detailed user's manual, see *GV-IPCam H.264 User's Manual* on the software CD.

Options

Optional devices can expand your camera's capabilities and versatility. Contact your dealer for more information.

Device	Description
GV-IR LED	A mountable infrared LED device that improves image performance of Box Cameras under low light conditions. Note that the **GV-IR LED** is only compatible with GV-BX110D and **GV-IR LED T2** is compatible with GV-BX120D / 220D-0 / 220D-1 / 220D-2 / 220D-3 / 320D-0 / 320D-1.
GV-PA191 PoE Adapter	The GV-PA191 PoE adapter is designed to provide power and network connection to the cameras over a single Ethernet cable.
Wall Mount Bracket	An L-shaped bracket designed for wall mount installation of the Vandal Proof IP Dome and the Fixed IP Dome.
Housing Cover	The housing cover is designed for Vandal Proof IP Dome to provide shielding to the camera. Two types are available: transparent and smoked.

alarm shop

Note for Connecting to GV-System

The GV-IPCAM H.264 is designed to work with GV-System, a hybrid or digital video management system. Note the following when GV-IPCAM H.264 is connected to GV-System:

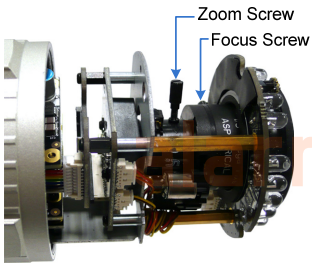
1. Normally, the images are recorded to the memory card inserted in the **Box Camera**, **Bullet Camera**, **Vandal Proof IP Dome**, **Fixed IP Dome** and **Cube Camera**. Once the camera is connected to GV-System for video management or the camera's Live View is accessed through the Web browser (see *7. Accessing the Camera* in the *Quick Start Guide*), the recording to the memory card will be stopped and the recording will be taken control by GV-System. When the connection between the camera and GV-System is interrupted, the recording to the memory card will be resumed to back up the images on the camera.
2. Once the camera is connected to GV-System, the resolution set on GV-System will override the resolution set on the camera's Web interface. You can only change the resolution settings through the Web interface when the connection to GV-System is interrupted.

alarm shop

Note for Adjusting Focus and Zoom

When adjusting the Focus and Zoom Screws (on Box Camera, Mini Fixed Dome, Bullet Camera, Vandal Proof IP Dome and Fixed IP Camera), please do not over tighten the Focus and Zoom screws. The screws only need to be as tight as your finger can do it; don't bother using any tools to get them tighter. Doing so can damage the structure of lens.

For example,



Bullet Camera

Fixed IP Camera

1. Box Camera

1.1 Packing List

- Box Camera
- Terminal Block
- Fixed Focal or Varifocal Megapixel Lens
- C-mount Lens Adapter (BX110D only)
- Lens Rings (BX120D, BX220D-0 / 220D-1 / 220D-2 / 220D-3, BX320D-0 / 320D-1 only)
- Video Out Wire (BX120D, BX220D-0 / 220D-1 / 220D-2 / 220D-3, BX320D-0 / 320D-1 only)
- DC 12V Power Adapter
- GV-IPCAM H.264 Software CD
- GV-IPCAM H.264 Quick Start Guide
- GV-NVR Software DVD
- GV-NVR Quick Start Guide

alarm shop

1.2 Overview

GV-BX110D

alarm shop

No.	Name	Description
1	Audio Out	Connects a speaker for audio output.
2	Audio In	Connects a microphone for audio input.
3	Default	Resets all configurations to factory default. See *10. Restoring to Default Settings* later in the *Quick Start Guide*.
4	Memory Card Slot	Inserts a micro SD/SDHC card to store recording data.
5	Video Out	Connects to a portable monitor for setting the focus and angle of Box Camera during initial installation.
6	I/O Terminal Block	Connects I/O devices. For details, see *I/O Terminal Block*, *Box Camera* chapter *GV-IPCam H.264 User's Manual* on the software CD.
7	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
8	DC 12V Connector	Connects to power.
9	Status LED	Reflects system status of the camera. See the table below.
10	Microphone	Records the sounds.
11	Auto Iris Connector	If the varifocal lens is in use, plug the iris control cable to the connector.

alarm shop

Status LED	Description
Red Light ON	The system powers on and succeeds to boot up.
Flashing Red and Green Lights	The camera is ready for use with network connectivity.
Green Light ON	Error occurs on the system.

GV-BX120D / 220D-0 / 220D-1 / 220D-2 / 220D-3 / 320D-0 / 320D-1

No.	Name	Description
1	Video Out	Connects to a portable monitor for setting the focus and angle of Box Camera during initial installation.
2	Memory Card Slot	Inserts a micro SD/SDHC card to store recording data.
3	Audio Out	Connects a speaker for audio output.
4	Audio In	Connects a microphone for audio input.
5	I/O Terminal Block	Connects I/O devices. For details, see *I/O Terminal Block*, *Box Camera* chapter, *GV-IPCam H.264 User's Manual* on the software CD.
6	Power LED	Indicates the power is supplied.
7	Default	Resets all configurations to factory default. See *10. Restoring to Default Settings* later in the *Quick Start Guide*.
8	LAN / PoE	Connects to a 10/100 Ethernet or PoE.
9	DC 12V Port	Connects to power.
10	Auto Iris Connector	Plug the iris control cable to the connector.
11	Microphone	Records the sounds.
12	Status LED	Turns on when the unit is ready for use.

alarm-shop

1.3 Accessory Installation

1.3.1 C-Mount Lenses

When you use a C-mount lens, it requires a certain distance from the camera's imaging chip; otherwise it will not be possible to focus the lens. Mount the supplied C-mount lens adapter / lens ring to the camera, and then attach the lens onto the camera body.

GV-BX110D

Install the supplied C-mount lens adapter to extend focal length for GV-BX110D as illustrated below.

alarmshop

GV-BX120D / 220D-0 / 220D-1 / 220D-2 / 220D-3 / 320D-0 / 320D-1

The supplied lens rings for GV-BX120D / 220D-0 / 220D-1 / 220D-2 / 220D-3 / 320D-0 / 320D-1 include 3 sizes in thickness:

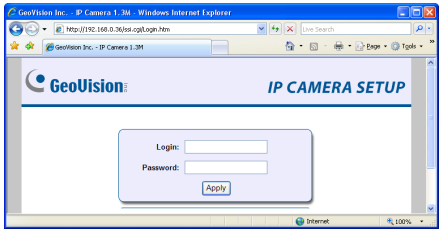
- 0.188 mm (transparent color) x 2
- 0.125 mm (black color with a glossy surface) x 2
- 0.254 mm (black color with a matt surface) x 2

Note: These lens rings are specially designed for varifocal models of GV-BX120D / 220D-0 / 220D-1 / 220D-2 / 220D-3 / 320D-0 / 320D-1. Besides the supplied 6 units, each varifocal model has already been installed with a 0.188 mm lens ring.

alarmshop

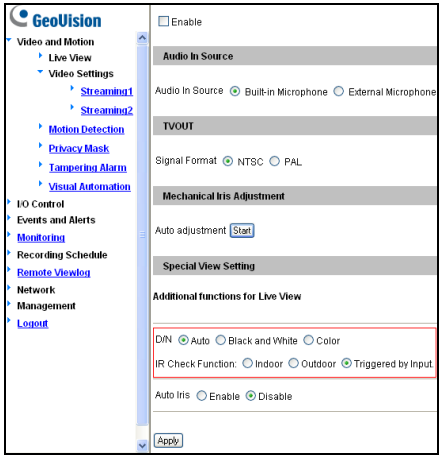
1.3.2 Infrared Illuminators (GV-IR LED / GV-IR LED T2)

1. Connect the infrared illuminator to the terminal block on the camera. See *I/O Terminal Block*, *Box Camera* chapter, *GV-IPCam H.264 User's Manual* on the software CD, or *GV-IR LED User's Manual*.
2. Access the Web interface of the camera.



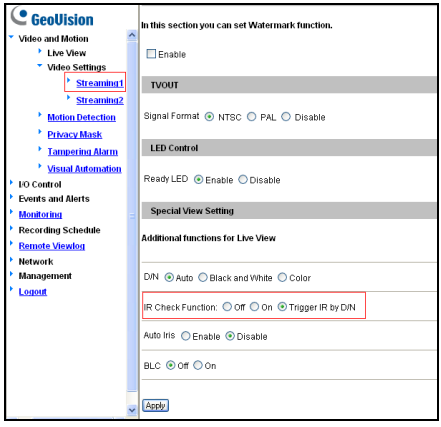
3. Select **Video and Motion**, select **Video Settings**, select **Streaming 1** and set the **IR Check Function** option to be **Trigger by Input** (for GV-IR LED) or **Trigger IR by D/N** (for GV-IR LED T2).

GV-IR LED



alarm shop

GV-IR LED T2



4. Click **Apply**.

For **Trigger by Input** and **Trigger IR by D/N** functions, see the *Video Settings section*, *Administrator Mode* chapter in the *GV-IPCam H.264 User's Manual* in the software CD.

alarm shop

1.4 Connecting the Camera

The Box Camera is designed for indoor use. Please make sure the installing site is shielded from rain and moisture.

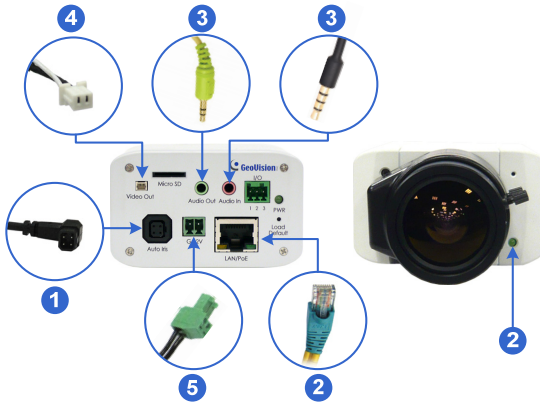
GV-BX110D

1. If you are using the varifocal lens model, plug the iris control cable to the Auto Iris Connector on the camera.
2. Use a standard network cable to connect the camera to your network.
3. Optionally connect a speaker and an external microphone.

4. Optionally connect a monitor using an RCA video-out wire. If your signal format is PAL, configure the TV Out setting on its Web interface. See *TV Out setting,* in the *Video Settings* section, *Administrator Mode* chapter, *GV-IPCam H.264 User's Manual* on the software CD.
5. Connect power using one of the following methods:
   - plugging the supplied power adapter to the DC jack.
   - using the Power over Ethernet (PoE) function and the power will be provided over the network cable.
6. The status LED of the camera will be red. Then you can set the IP address for the unit. See *7. Accessing the Camera* in the *Quick Start Guide*.

alarm shop

GV-BX120D / 220D-0 / 220D-1 / 220D-2 / 220D-3 / 320D-0 / 320D-1



1. Plug the iris control cable to the Auto Iris Connector on the camera.
2. Use a standard network cable to connect the camera to your network.
3. Optionally connect a speaker and an external microphone.
4. Optionally connect a monitor using a Video Out wire. If your signal format is PAL, configure the TV Out setting on its Web interface. See *TV Out setting,* in the *Video Settings* section, *Administrator Mode* chapter, *GV-IPCam H.264 User's Manual* on the software CD.
5. Connect power using one of the following methods:
   - plugging the supplied power adapter to the power port.
   - using the Power over Ethernet (PoE) function and the power will be provided over the network cable.
6. The status LED of the camera will be on. Then you can set the IP address for the unit. See *7. Accessing the Camera* in the *Quick Start Guide*.

elan in shop

alarm shop

2. Mini Fixed Dome

2.1 Packing List

- Mini Fixed Dome
- Security Torx
- Self Tapping Screw x 2
- Screw Anchor x 2
- GV-IPCAM H.264 Software CD
- GV-IPCAM H.264 Quick Start Guide
- GV-NVR Software DVD
- GV-NVR Quick Start Guide

alarm shop

2.2 Overview

No.	Name	Description
1	Default Button	Resets the GV-MFD110 to factory default. See *10. Restoring to Default Settings* later in the *Quick Start Guide*.
2	Lens	Rotates the les right/left to adjust focus.
3	Focus Fixed Screw	Loosens the screw to adjust the lens.
4	Tilt Fixed Screw	Loosens the screw to adjust tilt angle.
5	Built-In Microphone	Provides one-way audio.

6	Network/PoE Connection	Connects the Network cable for power and Ethernet connection.

2.3 Installation

The GV-MFD110 is exclusively designed for ceiling mount. Please make sure the installing site is shielded from rain and moisture.

1. Take the Mini Fixed Dome and make 2 marks on the ceiling for screw anchors.
2. Drill the marks and insert the screw anchors.
3. Secure the Mini Fixed Dome to the ceiling with the self-tapping screws.

Note: Due to the compact design, the camera can only be powered using PoE.

alarm shop

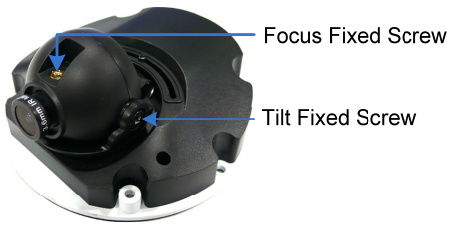
2.4 Adjusting the Focus

Based on the live image, adjust the camera's angle and focus by following the steps below. To access live images, see *7. Accessing the Camera* in the *Quick Start Guide*

1. Unscrew the camera's cover.

alarm shop

2. Loosen the focus fixed screw, and rotate the lens clockwise or counterclockwise to adjust focus. Loosen the tilt fixed screw, and adjust the camera's tilt angle.



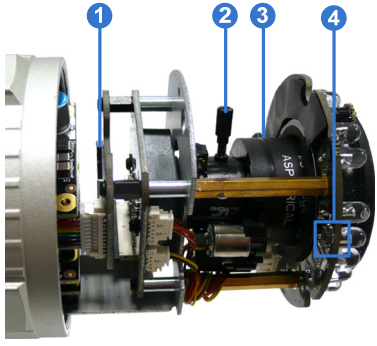
3. Bullet Camera

3.1 Packing List

- Bullet Camera
- Lens (Megapixel and Built-In 16 IR LEDs)
- Self Tapping Screw x 3
- Plastic Screw Anchor x 3
- Screw Adjuster x 2
- Sun-Shield Cover Kit (1 Sun-Shield Cover, 2 Philips Head Screws, 2 Plastic Screw Spacers and 2 Hexagon Screws included)
- Silica Gel Bag x 2 (1 is already placed inside the camera module)
- 3-Pin Terminal Block
- DC 12V Power Adapter
- GV-IPCAM H.264 Software CD
- GV-IPCAM H.264 Quick Start Guide
- GV-NVR Software DVD
- GV-NVR Quick Start Guide

alarm shop

3.2 Overview



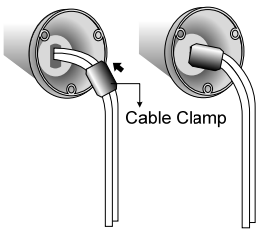
No.	Name	Description
1	Memory Card Slot	Receives a Micro SD/SDHC memory card.
2	Zoom Screw	Holds the zoom lens in place.
3	Focus Screw	Holds the focus lens in place
4	Default Button	Resets all configurations to factory default. See *10. Restoring to Default Settings* later in the *Quick Start Guide*.

alarmshop

3.3 Installation

The Bullet Camera is designed for outdoor use and can be mounted on ceiling and wall.

1. Slide the cable clamp to the camera base.



2. Install the Bullet Camera to the wall / ceiling.

alarm shop

3. Remove the protection sticker from the camera's cover.
4. Connect the network and power cables to the camera. See *3.4. Connecting the Camera* in the *Quick Start Guide*.
5. Access and check the live image from the camera. See *7. Accessing the Camera* in the *Quick Start Guide*.
6. Adjust the angles of the camera body and the base. Three shafts can be adjusted. For details, see *3.3.1 Adjusting the Angles* in the *Quick Start Guide*.

7. Loosen the camera's cover, adjust lens and focus, and insert a micro SD/SDHC card into the memory card slot. See *3.3.2 Adjusting Lens and Inserting a Memory Card* in the *Quick Start Guide*.
8. Fasten the camera's cover.
9. Install the sun-shield cover to the Bullet Camera. For details, see *3.3.3 Installing the Sun-Shield Cover* in the *Quick Start Guide*.

3.3.1 Adjusting the Angles

The Bullet Camera is designed to be adjustable in three shafts.

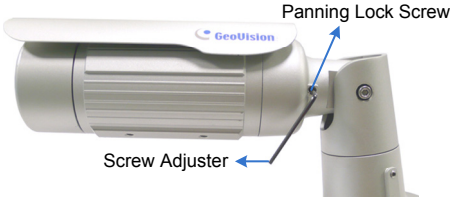
Tip: The three shafts are designed to offer easy and flexible ceiling / wall mount installation.

First Shaft

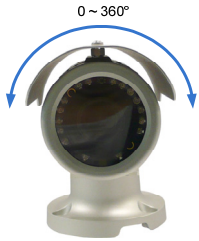
You can adjust the camera body by 360 degrees to the right or the left.

alarm shop

1. Unscrew the panning lock screw with the screw adjuster.



2. Adjust the angle of camera body to the right or the left, and fasten the panning lock screw.

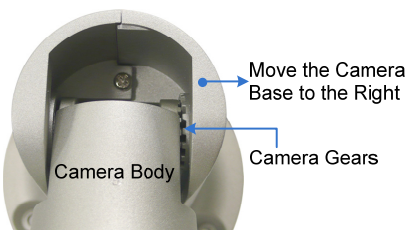


Second Shaft

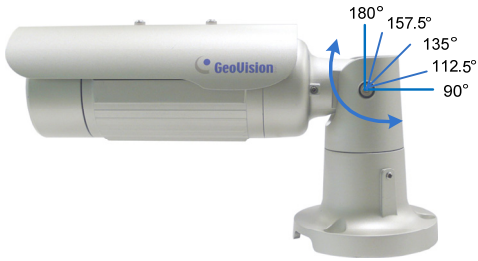
You can adjust the camera body up and down by 90, 112.5, 135, 157.5 or 180 degrees by using the gears inside the camera body and the camera base.

1. Unscrew the tilting lock screw with the screw adjuster.

2. Hold the camera body, and move the camera base to the right to separate the camera gears.



3. Adjust the angle of camera body to 90, 112.5, 135, 157.5 or 180 degrees. Then move the camera base to the left to combine the gears.



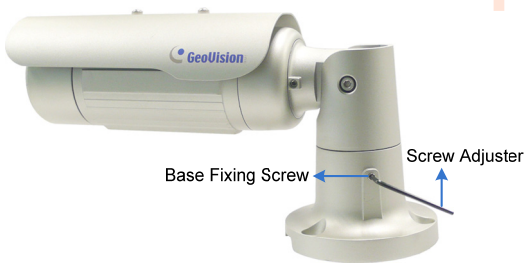
4. Fasten the tilting lock screw.

Third Shaft

You can adjust the camera base by 360 degrees.

alarm shop

1. Unscrew the base fixing screw with the screw adjuster.



2. Adjust the angle of camera base, and fasten the base fixing screw.

3.3.2 Adjusting Lens and Inserting a Memory Card

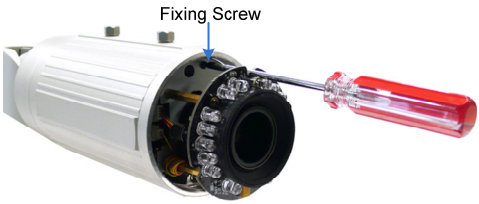
To adjust the camera's lens to produce a clear image and insert a memory card into the memory card slot.

alarm shop

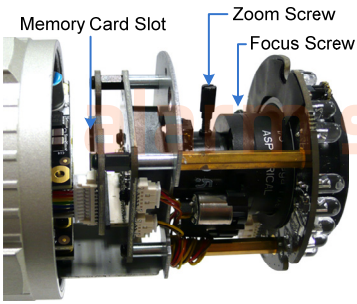
1. Loosen the camera's cover.

2. Remove the silica gel bag.

3. Loosen the fixing screw



4. Slightly pull out the camera module. Loosen the **Focus Screw** or the **Zoom Screw** to rotate the lens right/left to adjust focus or zoom. Insert a micro SD/SDHC card into the memory card slot.



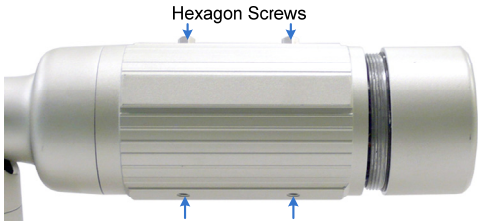
5. Slightly push the camera module back and fasten the fixing screw.
6. Replace a new silica gel bag to the camera module and fasten the camera's cover immediately.

IMPORTANT: To prevent the lens from fogging up, you must replace the silica gel bag every time you open the camera. The gel bag loses its effectiveness when the dry camera is opened.

3.3.3 Inserting the Sun-Shield Cover

After setting up the Bullet Camera, now you can install the sun-shield cover to the camera.

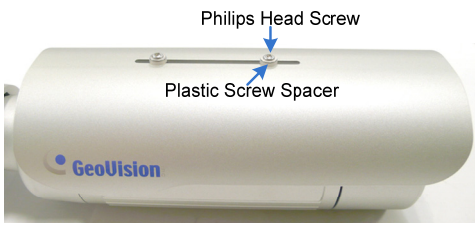
1. Fasten the hexagon screws either on top or below the camera.



2. Put the sun-shield cover on top of hexagon screws. Make sure to aim the rear hexagon screw at the edge of the sun-shield cover's aperture for optimal sun-shield performance.

alarm shop

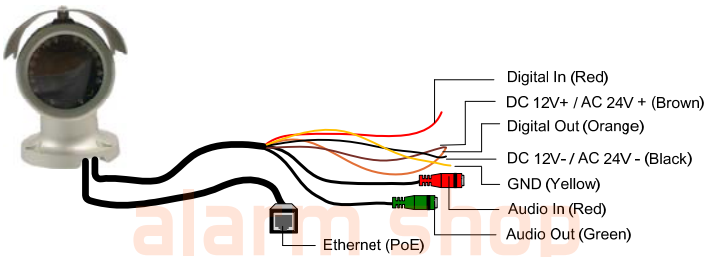
3. Fasten the Philips head screws with the plastic screw spacers.



3.4 Connecting the Camera

The following diagram shows the data cable of the Bullet Camera. There are two ways to supply power to the camera:

- Use a Power over Ethernet (PoE) adapter to connect the camera to the network, and the power will be provided at the same time.
- Use the supplied 3-pin Terminal Block and power adapter. For details, see *Connecting the Power Cable* in the following section.

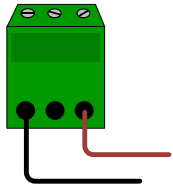


3.4.1 Wire Definition

No.	Wire Color	Definition
1	Red	Digital In
2	Brown	DC 12V+ / AC 24V-
3	Orange	Digital Out
4	Black	DC 12V- / AC 24V+
5	Yellow	Ground
6	Red	Audio in
7	Green	Audio out

3.4.2 Connecting the Power Cable

1. Insert the black wire of the Bullet Camera to the left-side pin of the 3-Pin Terminal Block and the brown wire to the right-side pin.



2. Connect the DC 12V Power Adapter to the 3-Pin Terminal Block.

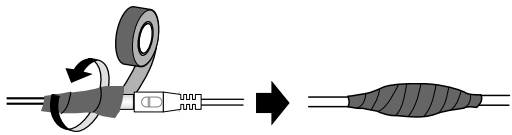
alarm shop

3.4.3 Applying Waterproof Treatment

To install the Bullet Camera outdoors, ensure to waterproof the cables. The camera's body is waterproof, but the PoE, audio, power and I/O cables are not waterproof. Use waterproof silicon rubber or the like to apply waterproof treatment to the cables.

‘

The following is an example of waterproofing the audio cable.



alarm shop

4. Vandal Proof IP Dome

4.1 Packing List

- Vandal Proof IP Dome
- Screw Anchor x 4

- Ceiling Screw x 4

- T-Cap Screw x 3

- T-Cap x 3

- Screw Adjuster x 1
- Silica Gel Bag x 2 (one already placed inside the camera)
- Blue Screw x 3

- Small Screw Cap x 3

- Plastic Clip x 3

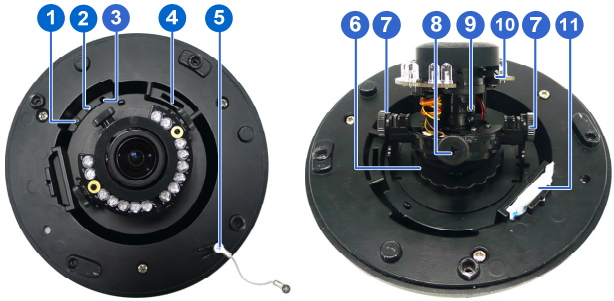
alarm shop

- Focus Adjustment Cap

- 2-Pin Terminal Block
- GV-IPCAM H.264 Quick Start Guide
- GV-NVR Quick Start Guide
- DC 12V Power Adapter
- GV-IPCam H.264 Software CD
- GV-NVR Software DVD

alarm shop

4.2 Overview



No.	Name	Description
1	Power LED	Turns on (green) when the power is on and turns off when there is no power supply.
2	Status LED	Turns on (green) when the system operates normally and turns off when system error occurs.
3	Default Button	Resets to factory default. For details, see *10. Restoring to Default Settings* in the *Quick Start Guide*.
4	Memory Card Slot	Inserts a micro SD/SDHC card to store recording data.
5	Thread Lock	Locks the housing cover to the camera body to prevent the cover from falling.
6	Pan Disc	Loosens to pan the camera.
7	Tilt Screw	Loosen the screw to tilt the camera.
8	Rotational Screw	Loosens to adjust the camera angle.
9	Zoom Screw	Adjusts the zoom of the camera.
10	Focus Screw	Adjusts the focus of the camera.
11	Silica Gel Bag	Absorbs moisture in the camera body.

alarmcamp

4.3 Installation

The Vandal Proof IP Dome is designed for outdoors. There are three ways to install the Vandal Proof IP Dome: **hard-ceiling mount**, **in-ceiling mount** and **wall-pendent mount**.

4.3.1 Hard-Ceiling Mount

alarm shop

1. Unpack the camera package and take out the camera body.

   Unscrew the housing cover

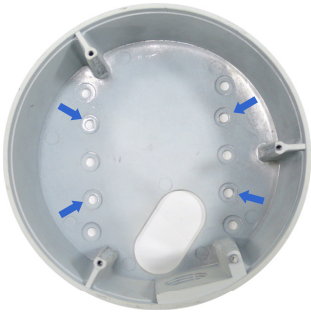
Unscrew thread lock

Unscrew the inner housing

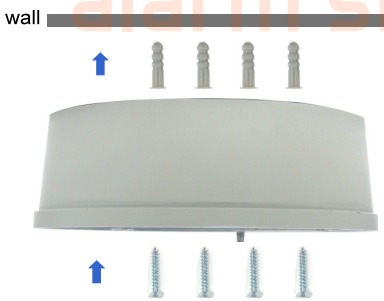
alarmshop

Take out the camera body

2. Mark the position of four screw holes on the desired installation location, and drill holes in the marked locations. Drill the ellipse part if you wish to put the wires through it.



3. Insert the screw anchors to the 4 holes on the ceiling.
4. Secure the back cover to the ceiling with 4 ceiling screws.



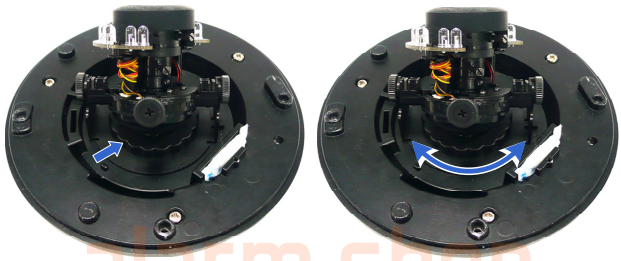
alarm shop

5. Follow step 1 to secure the camera body with inner housing.
6. Thread the cable through the conduit entry at the side of the back cover. Alternatively pass the wires through the ellipse hole at the bottom of the back cover.
7. Connect the network and power cables to the camera. See *4.4 Connecting the Camera* in the *Quick Start Guide*.

8. Access and check the live image from the camera. See *7. Accessing the Camera* in the *Quick Start Guide*.
9. Adjust the camera to a desired angle as illustrated below.

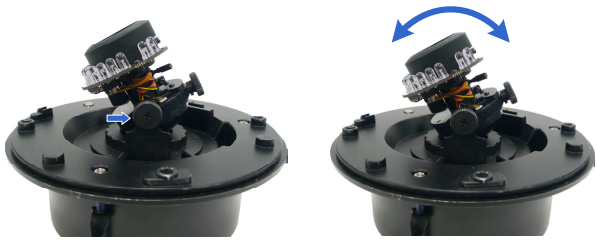
Tip: The 3-axis mechanism offers flexible and easy installation.

Pan adjustment

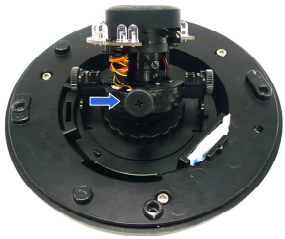


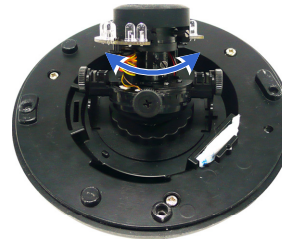
alarm shop

Tilt adjustment

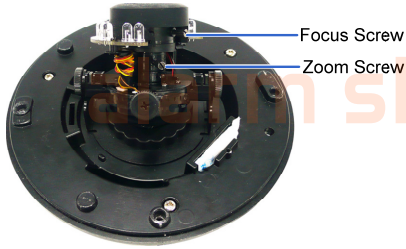


Rotational Adjustment





10. Hold the focus adjustment cap on top of the camera view to simulate the housing cover and adjust the focus and zoom using the focus and zoom screws.



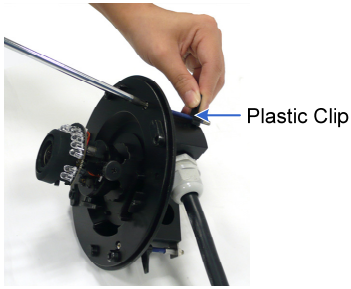
11. Screw on the thread lock as shown in step 1.
12. Secure the housing cover to the camera body as shown in step 1.

Note: Adjust the black mask inside the housing cover to make sure the camera view is not obscured.

4.3.2 In-Ceiling Mount

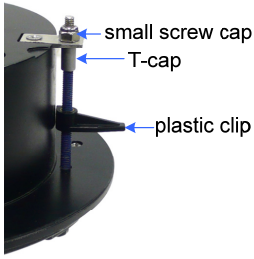
1. Follow step 1 in the *Hard-Ceiling Mount* section to remove the housing cover, thread lock and back cover, and take out the camera body.
2. Cut out a circle with a diameter of 142 mm on the ceiling.
3. Insert a blue screw to the indicated holes on the camera body.

4. Screw in a plastic clip to the blue screw, hold it with one hand and use a screw driver to rotate the blue screw until the plastic clip moves half way down.



5. Secure a T-cap on top of the blue screw with a small screw cap and a T-cap screw. Do not tighten the small screw cap so that the plastic clip can move down freely.

alarm shop



6. Repeat steps 4 and 5 for the other two blue screws.

7. Insert the camera to the ceiling with the plastic screws moved inward.

8. Move the blue screws out and rotate the blue screw with a screw driver until the plastic clip and the bottom of the camera body clamps the ceiling tightly.

alarm shop

9. Connect the network and power cables to the camera. See *4.4 Connecting the Camera* in the *Quick Start Guide*.
10. Access and check the live image from the camera. See *7. Accessing the Camera* in the *Quick Start Guide*.
11. Follow steps 9 to 10 in the *Hard-Ceiling Mount* section to adjust the angle, focus and zoom of the camera.
12. Follow steps 11 to 12 in the *Hard-Ceiling Mount* section to secure the thread lock and the housing cover.

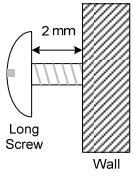
4.3.3 Wall-Pendent Mount

For the wall-pendent mount installation, you need to purchase the wall mount bracket additionally.

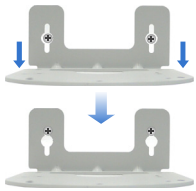
1. Take the wall mount bracket and make 2 marks on the wall for screw anchors.

alarm shop

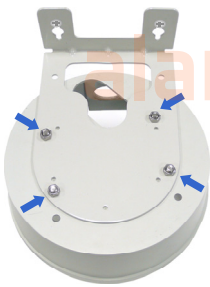
2. Drill the marks and insert 2 screw anchors.
3. Insert the ceiling screws and leave enough distance (approximately 2 mm) to hang the wall mount bracket later.



4. Hang the wall mount bracket on the ceiling screws and push the wall mount bracket downward. Tighten the screws to the wall.



5. Follow step 1 in the *Hard-Ceiling Mount* section to remove the housing cover, thread lock and back cover, and take out the camera body.
6. Secure the back cover to the wall mount bracket with four short screws and big screw caps (both are supplied with the wall mount bracket).



alarm shop

7. Thread the cable through the conduit entry at the bottom of the back cover.

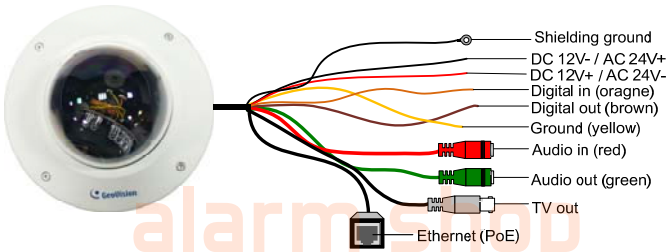
8. Follow step 1 in the *Hard-Ceiling Mount* section to secure the camera body with inner housing.
9. Connect the network and power cables to the camera. See *4.4 Connecting the Camera* in the *Quick Start Guide*.
10. Access and check the live image from the camera. See *7. Accessing the Camera* in the *Quick Start Guide*.
11. Follow steps 9 to 10 in the *Hard-Ceiling Mount* section to adjust the angle, focus and zoom of the camera.
12. Follow steps 11 to 12 in the *Hard-Ceiling Mount* section to secure the thread lock and the housing cover.

alarm shop

4.4 Connecting the Camera

The following diagram shows the data cable of the Vandal Proof IP Dome. There are two ways to supply power to the camera:

- Use a Power over Ethernet (PoE) adapter to connect the camera to the network, and the power will be provided at the same time.
- Use the supplied 2-pin terminal block and power adapter.



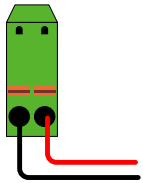
alarmshop

4.4.1 Wire Definition

No.	Wire Color	Definition
1	Black (thick)	Shielding Ground
2	Black (thin)	DC 12V- / AC 24V+
3	Red	DC 12V+ / AC 24V-
4	Orange	Digital In
5	Brown	Digital out
6	Yellow	Ground
7	Red	Audio in
8	Green	Audio out
9	Black	TV out

4.4.2 Connecting the Power Cable

1. Insert the black wire of the Vandal Proof IP Dome to the left-side pin of the 2-Pin Terminal Block and the red wire to the right-side pin.



2. Connect the DC 12V Power Adapter to the 2-Pin Terminal Block.

alarm shop

5. Fixed IP Dome

5.1 Packing List

- Fixed IP Dome
- Screw Adjuster x 1

- Mounting Plate x 1

- Short Screw Anchor x 3

- Ceiling Screw x 3

- Plate Screw x 3

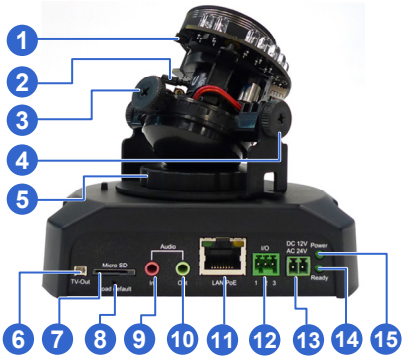
- TV-out Wire

DC 12V Power Adapter

- Sticker
- GV-IPCAM H.264 Quick Start Guide
- GV-IPCam H.264 Software CD
- GV-NVR Quick Start Guide
- GV-NVR Software DVD

alarm shop

5.2 Overview



No.	Name	Description
1	Focus Screw	Adjusts the focus of the camera.
2	Zoom Screw	Adjusts the zoom of the camera.
3	Rotational Screw	Loosens to adjust the camera angle.
4	Tilt Screw	Loosens the screw to tilt the camera.
5	Pan Disc	Loosens to pan the camera.
6	Video Out	Connects to a portable monitor for setting the focus and angle of Fixed IP Dome during initial installation.
7	Memory Card Slot	Inserts a micro SD/SDHC card to store recording data.
8	Default Button	Resets to factory default. For details, see *10. Restoring to Default Settings* in the *Quick Start Guide*.
9	Audio In	Connects a microphone for audio input.
10	Audio Out	Connects a speaker for audio output.
11	LAN / PoE	Connects to a 10/100 Ethernet or PoE.

alarm shop

12	I/O Terminal Block	Connects I/O devices. For details, see *Fixed IP Dome* chapter in the *GV-IPCam H.264 User's Manual* on the software CD.
13	DC 12V Port	Connects to power.
14	Status LED	Turns on (green) when the system operates normally and turns off when system error occurs.
15	Power LED	Turns on (green) when the power is on and turns off when there is no power supply.

alarm shop

5.3 Installation

The Fixed IP Camera is designed for indoors. There are two ways to install the Fixed IP Camera: **hard-ceiling mount, wall-surface mount** and **wall-pendent mount**.

5.3.1 Hard-Ceiling Mount

alarm shop

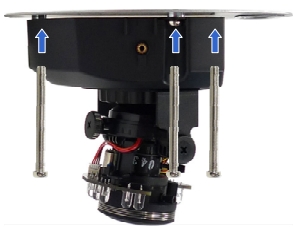
1. Paste the supplied sticker onto a desired location on the ceiling. Drill the three red dots and the ellipse mark only if you wish to run the wires into the ceiling.
2. Unpack the camera package and take out the camera body.

Use the screw adjuster to loosen the housing cover at the front and the back

Take out the camera body

alarm shop

3. Secure the camera body to the mounting plate with three ceiling screws.



4. Connect the network and power cables to the camera. See *5.4 Connecting the Camera* in the *Quick Start Guide*.
5. Access and check the live image from the camera. See *7. Accessing the Camera* in the *Quick Start Guide*.

6. Adjust the camera to a desired angle as illustrated below.

Tip: The 3-axis mechanism offers flexible and easy ceiling / wall installation.

Pan adjustment

Tilt adjustment

alarm shop

Rotational Adjustment

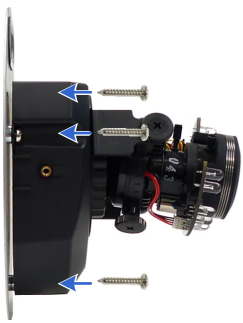
7. Adjust the focus and zoom using the focus and zoom screws.

8. Secure the housing cover as shown in step 2. Remove the indicated part when necessary.

Note: Adjust the black mask inside the housing cover to make sure the camera view is not obscured.

5.3.2 Wall-Surface Mount

1. Follow step 2 in the Hard-*Ceiling Mount* section to remove the housing cover and take out the camera body.
2. Paste the supplied sticker onto a desired location on the wall. Drill the three red dots, and the ellipse mark only if you wish to run the wires into the wall.
3. Insert the short screw anchors and secure the camera and the mounting plate with three plate screws.



4. Connect the network and power cables to the camera. See *5.4 Connecting the Camera* in the *Quick Start Guide*.
5. Access and check the live image from the camera. See *7. Accessing the Camera* in the *Quick Start Guide*.

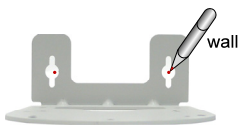
6. Follow steps 6 and 7 in the Hard-*Ceiling Mount* section to adjust the angle, focus and zoom of the camera.
7. Follow step 8 in the Hard-*Ceiling Mount* section to secure the housing cover.

5.3.3 Wall-Pendent Mount

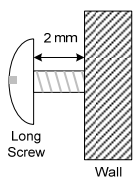
For the wall-pendent mount installation, you need to purchase the wall mount bracket additionally.

alarm shop

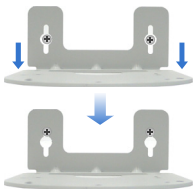
1. Take the wall mount bracket and make 2 marks on the wall for screw anchors.



2. Drill the marks and insert 2 long screw anchors (supplied with the wall mount bracket).
3. Insert the wall mount screws (supplied with the wall mount bracket) and leave enough distance (approximately 2 mm) to hang the wall mount bracket later.



4. Hang the wall mount bracket on the wall mount screws and push the wall mount bracket downward. Tighten the wall mount screws to the wall.



5. Follow step 2 in the Hard-*Ceiling Mount* section to remove the housing cover and take out the camera body.
6. Secure the camera body to the wall mount bracket with three short screws (supplied with the wall mount bracket).

alarm shop

7. Connect the network and power cables to the camera. See *5.4 Connecting the Camera* in the *Quick Start Guide*.
8. Access and check the live image from the camera. See *7. Accessing the Camera* in the *Quick Start Guide*.
9. Follow steps 6 and 7 in the Hard-*Ceiling Mount* section to adjust the angle, focus and zoom of the camera.
10. Follow step 8 in the Hard-*Ceiling Mount* section to secure the housing cover.

5.4 Connecting the Camera

1. Use a standard network cable to connect the camera to your network.
2. Optionally connect a speaker and an external microphone.
3. Optionally connect a monitor using a Video Out wire. If your signal format is PAL, configure the TV Out setting on its Web interface. See *TV Out setting,* in the *Video Settings* section, *Administrator Mode* chapter, *GV-IPCam H.264 User's Manual* on the software CD.
4. Connect power using one of the following methods:
   - plugging the supplied power adapter to the power port.
   - using the Power over Ethernet (PoE) function and the power will be provided over the network cable.
5. The status LED of the camera will be on. Then you can set the IP address for the unit. See *7. Accessing the Camera* in the *Quick Start Guide*.

alarm shop

alarm shop

6. Cube Camera

6.1 Packing List

- Cube Camera
- Supporting Rack

- Screw x 3

- Screw Anchor x 3

alarm shop

- DC 12V Power Adapter
- GV-IPCam H.264 Software CD
- GV-IPCAM H.264 Quick Start Guide
- GV-NVR Software DVD
- GV-NVR Quick Start Guide

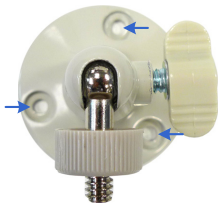
6.2 Overview

No.	Name	Description
1	Microphone	Receives sounds.
2	Speaker	Plays sounds.
3	LAN	Connects to a 10/100 Ethernet.
4	Status LED	Turns red when the system powers on. Turns orange when the system is ready.
5	LAN LED	Turns green when the camera is connected to the Internet.
6	Stand screw	Connects to the Supporting Rack.
7	Default Button	Resets to factory default. For details, see *10. Restoring to Default Settings* in the *Quick Start Guide*.
8	DC 12V Port	Connects to power.
9	Memory Card Slot	Inserts a micro SD/SDHC card to store recording data.

alarm-shop

6.3 Installation

1. Put the supporting rack on the desired location and make marks for screw anchors.

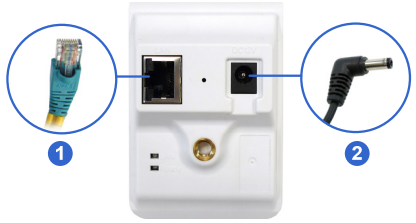


2. Drill the marks and insert the screw anchors.
3. Secure the supporting rack onto the wall using the supplied screws.
4. Screw the camera onto the supporting rack and fasten the indicated screw.

alarm shop

5. Adjust the angles of the camera and fasten the indicated screw.

6.4 Connecting the Camera



1. Use a standard network cable to connect the camera to your network.
2. Connect power by plugging the supplied power adapter to the DC jack.
3. The status LED of the camera will be orange. Then you can set the IP address for the unit. See *7. Accessing the Camera* in the *Quick Start Guide*.

alarm shop

7. Accessing the Camera

7.1 System Requirement

To access the Box Camera, Mini Fixed Dome, Bullet Camera, Vandal Proof IP Dome, Fixed IP Dome and Cube Camera through the Web browser, ensure your PC connects to the network properly and meets this system requirement:

- Microsoft Internet Explorer 7.x or later

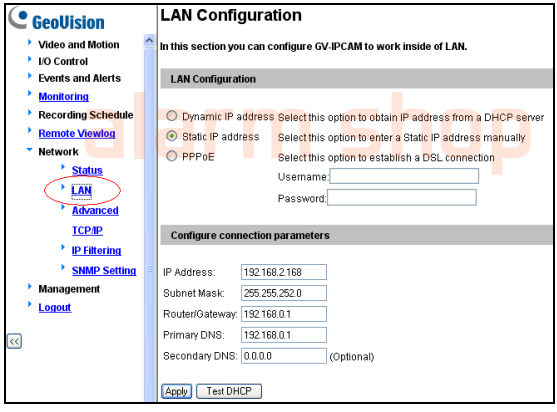
Note: For the users of **Internet Explorer 8**, additional settings are required. For details, see *Appendix B* in *GV-IPCam H.264 User's Manual* on the software CD.

alarm shop

7.2 Assigning an IP Address

Designed for use on the network, the Box Camera, Mini Fixed Dome, Bullet Camera, Vandal Proof IP Dome, Fixed IP Dome and Cube Camera must be assigned an IP address to make it accessible:

1. Open your web browser, and type the default IP address http://192.168.0.10.
2. In both Login and Password fields, type the default value **admin**. Click **Apply**.
3. In the left menu, select **Network** and then **LAN** to begin the network settings.



4. Select **Static IP address**. Type IP Address, Subnet Mask, Router/Gateway, Primary DNS and Secondary DNS in the **Configure connection parameters** section.
5. Click **Apply**. The camera is now accessible by entering the assigned IP address on the web browser.

6. To enable the updating of images in Microsoft Internet Explorer, you must set your browser to allow ActiveX Controls and perform a one-time installation of GeoVision's ActiveX component onto your computer.

IMPORTANT:

1. **Dynamic IP Address** and **PPPoE** should only be enabled if you know which IP address the camera will get from the DHCP server or ISP. Otherwise you must use the Dynamic DNS service to obtain a domain name linked to the camera's changing IP address first.
2. If **Dynamic IP Address** or **PPPoE** is enabled and you cannot access the camera, you may have to reset the camera to its factory default and then perform the network settings again. To restore factory settings, see *10. Restoring to Default Settings* in the *Quick Start Guide*.

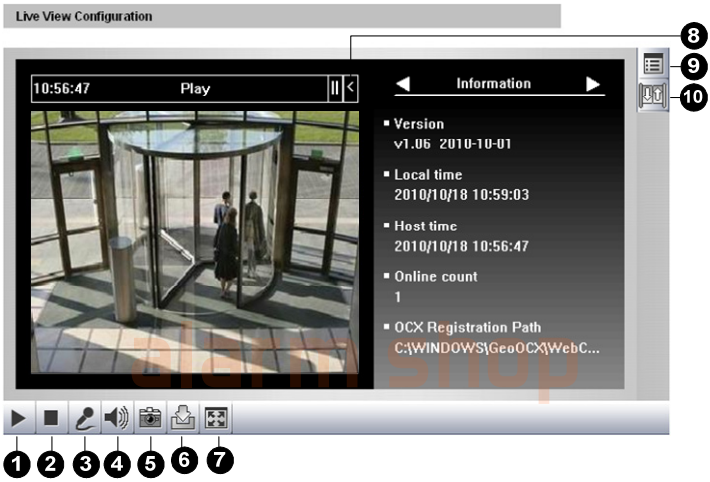
alarm shop

alarm shop

8. The Web Interface

Live View

In this section you can see and configure the default camera view.



No.	Name	Function
1	Play	Plays live video.
2	Stop	Stops playing video.
3	Microphone	Talks to the surveillance area from the local computer.
4	Speaker	Listens to the audio around the camera.
5	Snapshot	Takes a snapshot of live video.
6	File Save	Records live video to the local computer.
7	Full Screen	Switches to full screen view. Right-click the image to see additional options.
8	Control Panel	Displays the camera information, video settings, audio data rate, I/O device status, images captured upon alarm, and GPS location of the camera. Also allows you to adjust image quality and install the program from the hard drive.
9	Show System Menu	Brings up these functions: Alarm Notify, Video and Audio Configuration, Remote Config, Show Camera Name and Image Enhance.
10	I/O Control	Enables the I/O Control Panel and Visual Automation.

alarm shop

9. Upgrading System Firmware

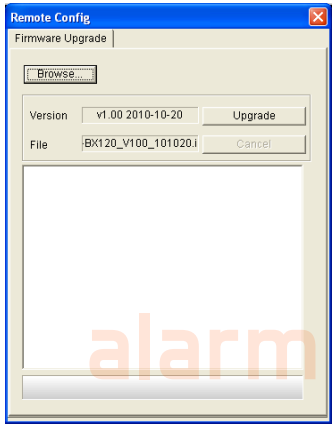
GeoVision periodically releases updated firmware on the website. The new firmware can be simply loaded into the GV-IPCAM H.264 by using the Web interface or IP Device Utility included in the software CD.

IMPORTANT:

1. While the firmware is being updated,
   A) the power supply must not be interrupted, and
   B) do not unplug the Ethernet cable if the cable is the source of power supply (Power over Ethernet or PoE supported).
2. Do not turn the power off within 10 minutes after the firmware is updated.
3. If you use the IP Device Utility for firmware upgrade, the computer used to upgrade firmware must be under the same network of the camera.

alarm shop

1. Stop these operations: monitoring of IPCam H.264, connection to GV-System and remote connections to Center V2, VSM, ViewLog Server and 3GPP.
2. In the Live View window, click the **Show System Menu** button and select **Remote Config**. This dialog box appears.



alarm shop

3. Click the **Browse** button to locate the firmware file (.img) saved at your local computer.
4. Click the **Upgrade** button to start the upgrade.

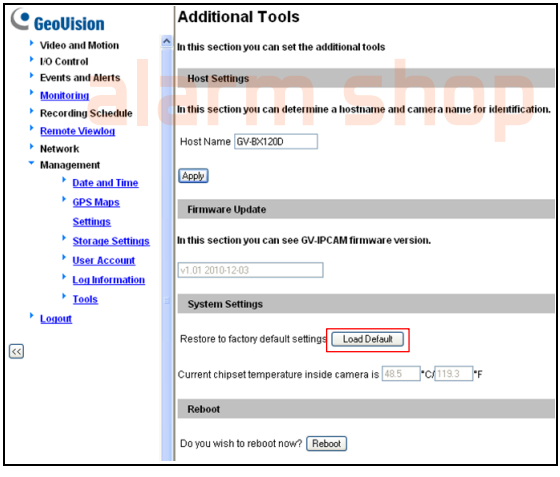
WARNING: The interruption of power supply during updating causes not only update failures but also damages to the camera. In this case, please contact your sales representative and send your device back to GeoVision for repair.

10 Restoring to Default Settings

GeoVision periodically releases updated firmware on the website. The new fir You can restore factory default settings through the Web interface or directly on the camera.

10.1 Using the Web Interface

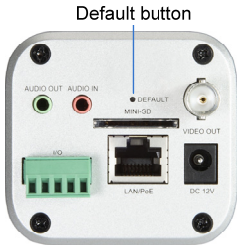
1. On the left menu of Web interface, select **Management** and select **Tools**. The Additional Tools dialog box appears.
2. Click the **Load Default** button in the System Settings section.



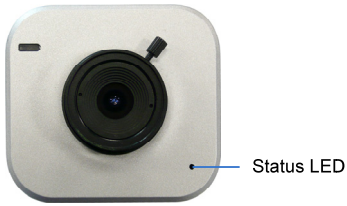
10.2 Directly on the Camera

GV-BX110D

1. Unplug the power cable and the network cable to start.
2. Press and hold the **default** button on the back panel of the camera.



3. Power on the camera using the power cable or PoE cable. The status LED on the front panel of the camera turns red.

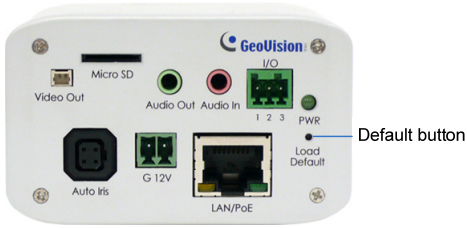


4. Wait until the status LED turns off. This may take about 10 seconds.
5. Soon after the status LED turns off, it turns red again and a clicking sound appears. Then you can release the **default** button and the process of loading default values is completed.

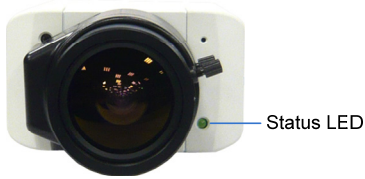
alarm shop

GV-BX120D / 220D-0 / 220D-1 / 220D-2 / 220D-3 / 320D-0 / 320D-1

1. Unplug the power cable and the network cable to start.
2. Press and hold the **default** button on the back panel of the camera.



3. Power on the camera using the power cable or PoE cable. The status LED on the front panel of the camera turns on and then off twice. This may take about 30 seconds.



4. Release the **default** button and the process of loading default values is completed.

Mini Fixed Dome

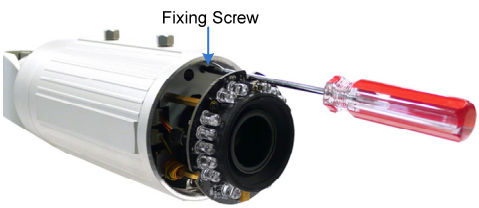
1. Unplug the network cable to start.
2. Unscrew the camera's cover.
3. Press and hold the **default** button.

4. Power on the camera using the network cable. Wait until the network status LED turns off. This may take about 40 seconds.
5. Soon after the network status LED turns off, release the **default** button. The process of loading default values is completed.

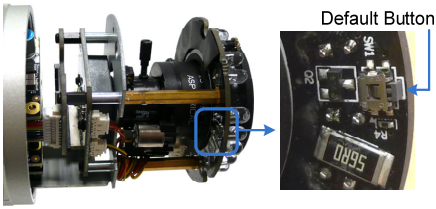
alarm shop

Bullet Camera

1. Unplug the power cable and the network cable to start.
2. Loosen the camera's cover and remove the **Silica Gel Bag**.
3. Unscrew the **Fixing Screw** and slightly pull out the camera module.



4. Press and hold the **Default** button for 50 seconds while plugging the power cable.

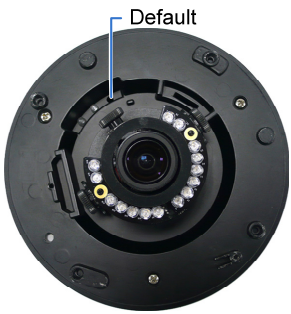


5. Release the **default** button and the process of loading default values is completed.
6. Slightly push the camera module back and fasten the **Fixing Screw**.
7. Replace a new **Silica Gel Bag** and fasten the camera's cover immediately.

alarm shop

Vandal Proof IP Dome

1. Unplug the power cable and the network cable to start.
2. Use a pin to press and hold the **default** button on the inner housing.



3. Power on the camera using the power cable or PoE cable.

4. When the status LED turns on and off twice, release the **default** button and the process of loading default is completed. This may take about 30 seconds.

Fixed IP Dome

alarm shop

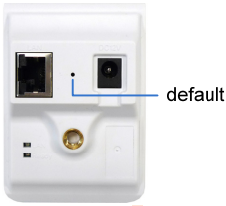
1. Unplug the power cable and the network cable to start.
2. Use a pin to press and hold the **default** button on the panel.

3. Power on the camera using the power cable or PoE cable.

4. When the status LED turns on and off twice, release the **default** button and the process of loading default is completed. This may take about 35 seconds.

Cube Camera

1. Unplug the power cable and the network cable to start.
2. Use a pin to press and hold the **default** button on the panel.



alarm shop

3. Power on the camera using the power cable.
4. When the status LED turns on (orange) and off twice, release the **default** button and the process of loading default is completed. This may take about 35 seconds.